



The 2010 California Green Building Standards Code

By Dave Walls

There's a new building code coming to your city. The 2010 California Green Building Standards Code referred to as CALGreen goes into effect in January 2011. CALGreen is the first-in-the-nation statewide mandatory green building code. The new mandatory measures set sensible minimum standards that all new structures can realize to significantly minimize the state's overall carbon output. It is important to underscore that each local jurisdiction retains the administrative authority to exceed the CALGreen standards.

California will now require new buildings to reduce its water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and to install low pollutant-emitting finish materials. These provisions establish the minimum of green construction practices and incorporate environmentally-responsible buildings into the everyday fabric of California cities. CALGreen has approximately 52 mandatory measures and an additional 130 provisions that have been placed in the appendix for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20% reduction of potable water use within buildings, a 50% construction waste diversion from landfills, use of building finish materials that emit low volatile organic compounds, and building commissioning.

Key optional measures include cool roofs, performance and prescriptive energy measures, increased reduction in landscape potable water irrigation, and building flush out prior to occupancy. Another key component is a two tiered system designed to allow jurisdictions to adopt codes that go beyond the state mandatory provisions. The nonresidential tiers include increased reduction in energy usage by 15 or 30 percent and increased reduction in potable water use, parking for clean air vehicles, cool roofs, construction waste diversion, use of recycled materials, and use of low-emitting resilient flooring and thermal insulation.

The code addresses the critical issue of compliance verification by utilizing the existing building code enforcement infrastructure; public agencies will incorporate the CALGreen code provisions into their construction field inspections. The mandatory CALGreen measures will be inspected and verified by local building departments.

The tiers are designed to become mandatory when adopted by a local jurisdiction. They then fall under the local building department's inspection process. California's building officials are some of the finest professionals in public service. They not only enforce highly technical health and safety standards, but they enforce accessibility standards, energy standards, and typically assist in the inspections of public works and local planning requirements.

In an effort to assist with the implementation of CALGreen, the California Building Standards Commission (CBSC) is taking advantage of existing training programs within the building industry, developing educational materials and program curriculum, and working toward partnerships with stakeholder organizations. CALGreen is currently available online and is in the process of being published along with the rest of the California Building Standards Code, Title 24, that was adopted in January. The effective date for the 2010 California Building Standards Code, which includes CALGreen, is January 1, 2011.

CALGreen goes into effect in a matter of months but it has been years in the making...

Governor Schwarzenegger made the greening of California a huge priority for his administration. In 2004, Executive Order S-20-04 created the "Green Building Action Team" that established efficiency measures for state-owned buildings, with a goal of reducing grid-based electricity by 20% in the year 2015. Under the guidance of the Green Building Action Team, the Department of General Services established green building policies for new and existing state buildings. In 2005, Executive Order S-03-05 established the "Climate Action Team" (CAT) and called for an overall reduction in greenhouse gas emissions in California.

The Governor's environmental measures include his signature on California's landmark bill, AB32, which establishes a comprehensive program of cost effective reductions of greenhouse gases to 1990 levels by 2020. CBSC and the other agencies' staff worked with CAT and the California Air Resources



Board to ensure that the green building standards are factored into the program designed to meet the goals of AB32.

In early 2007, Governor Schwarzenegger's administration asked CBSC to initiate a process to develop green building standards for the State of California. Together with the Department of Housing and Community Development (HCD), CBSC developed a plan to accomplish the goal. In October of that year the Governor provided further direction to CBSC to work with specified state agencies on the adoption of green building standards for residential, commercial, and public buildings for the 2010 code adoption cycle. As a result, CBSC made the development of the first statewide green building standards code a priority.

CBSC worked closely with the HCD to accomplish the daunting assignment. The two agencies began the process by reviewing existing green building standards, best practices, guidelines, and other published material. The goal was to develop a code that incorporated green building measures that were familiar to the industry rather than "reinventing the wheel". A critical part of the process was to establish a focus group composed of representatives from various environmental groups, building professionals, code enforcement agencies, industry stakeholders, and other interested parties.

The state agencies collaborated with members of focus groups and their respective advisory boards.

Information acquired during these meetings provided the impetus behind the preliminary development and adoption of the 2008 California Green Building Standards Code, which went into effect in August 2009. The 2008 code was composed of voluntary measures that actually became a wake up call for what was to come.

The intention of the *optional or voluntary* approach was to allow industry and enforcement agencies to prepare for and adjust to the proposed green building standards before they become mandatory – therefore greatly increasing the chances of a high level of compliance. The code was well received. Several local jurisdictions throughout the state took the leap and adopted the 2008 code as mandatory. As a result we have received very important feedback from the industry, the enforcement community and other stakeholders.

In January, the Governor's vision was realized with the adoption of the 2010 California Green Building Standards Code (CALGreen). This landmark code will achieve significant impacts in greenhouse gas emissions, energy consumption, and water conservation for the state. Along with HCD, Division of the State Architect, and the Office of Statewide Health Planning and Development, CBSC is working diligently to ensure that stakeholders statewide are familiar with the new requirements long before the January 2011 effective date.

The 2009 code adoption cycle followed the very successful transparent code development process that allowed input from a cross section of stakeholders, subject matter experts, and the collective expertise of state agencies such as the state Air Resources Board, Department of General Services, Integrated Waste Management Board (CalRecycle), Department of Water Resources, and the California Energy Commission.

Looking to the future, CALGreen will continue to evolve by employing the same open-door, transparent process that has proven successful thus far. CBSC looks forward to the opportunity to engage in continued discussions with our stakeholders to modify, enhance, and expand the codes to benefit building owners and the environment.

Finally, this was an incredible team effort and all that participated deserve credit for the success of CALGreen. The provisions of the new code are attainable and realistic and based on good practices.

CBSC and HCD worked closely with the building industry and other stakeholders to ensure that the mandatory regulations achieved a balance between significant environmental standards and effective practices that will not drive up construction costs in a slow economy.

The code is not perfect (yet!). However, CALGreen is a vital fundamental step in mainstreaming green building design and a tremendous step toward the reduction in the carbon footprint buildings have on the environment in California.



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